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TM 11-5830-202-10

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL
PUBLIC ADDRESS
SET AN/UIH-1

HEADQUARTERS, DEPARTMENT OF THE ARMY
FEBRUARY 1959

TECHNICAL MANUAL
No. 11-5830-202-10

HEADQUARTERS,
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PUBLIC ADDRESS SET AN/UIH-1

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

This manual describes Public Address Set AN/UIH–1 and covers its operation and operator's maintenance. It includes instructions on operation under usual and unusual conditions, on cleaning, inspection, and operator's repairs of the equipment.

2. Forms and Records

a. Unsatisfactory Equipment Reports.

(1) Fill out and forward DA Form 468 (Unsatisfactory Equipment Report) to the Commanding Officer, U.S. Army Signal Equipment Support Agency, Fort Monmouth, N.J., as prescribed in AR 700–38.

(2) Fill out and forward AF TO Form 29 (Unsatisfactory Report) to the Commander, Air Materiel Command, Wright-Patterson Air Force Base, Ohio, as prescribed in AF TO 00–35D–54.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700–58 (Army), Navy Shipping Guide, Article 1850–4 (Navy), and AFR 71–4 (Air Force).

c. Preventive Maintenance Forms. Prepare DA Form 11–238 (figs. 7 and 8) (Maintenance Check List for Signal Equipment (Sound Equipment, Radio, Direction Finding, Radar, Carrier, Radiosonde and Television)) in accordance with instructions on the form.

d. Comments on Manual. **Forward all comments on this manual direct to the Commanding Officer, U.S. Army Signal Publications Agency, Fort Monmouth, N. J.**

Section II. DESCRIPTION AND DATA

3. Purpose and Use

a. Purpose. Public Address Set AN/UIH–1 (figs. 1 and 2) provides mobile or stationary facilities for audio amplification. The audio inputs may originate locally or remotely from a microphone or reproducer and be applied directly or over telephone lines.

b. Use. The equipment is used to address groups of persons under training or tactical conditions.

4. Technical Characteristics

a. Audio Frequency Amplifier AM–1830/UIH.

Number of tubes	6.
Circuit breaker capacity	15 amperes.
Frequency range	300 to 7,000 cycles per second.
Types of input	Microphone, telephone, reproducer, or from another AM–1830/UIH.
Input impedances:	
Microphone	150 ohms.
Telephone or reproducer.	600 ohms.
Bridging	20,000 ohms.
Output power	100 watts maximum at 1,000 cycles per second.
Output impedance	500 ohms.
Power requirements	350 watts, 12.6 amperes at 28 volts dc.
Power source	Two battery boxes (28 volts) or vehicular battery (24 volts).
Bias battery (BA–234/U)	One (—45 volts).

b. Permanent Magnet Loudspeaker LS–437/U.

Frequency range	300 to 5,000 cycles per second.
Input impedance	500 ohms
Output power	50 watts normal, 100 watts peak.

c. Magnetic Microphone M–86/U.

Frequency range	100 to 4,000 cycles per second.
Impedance	50 ohms

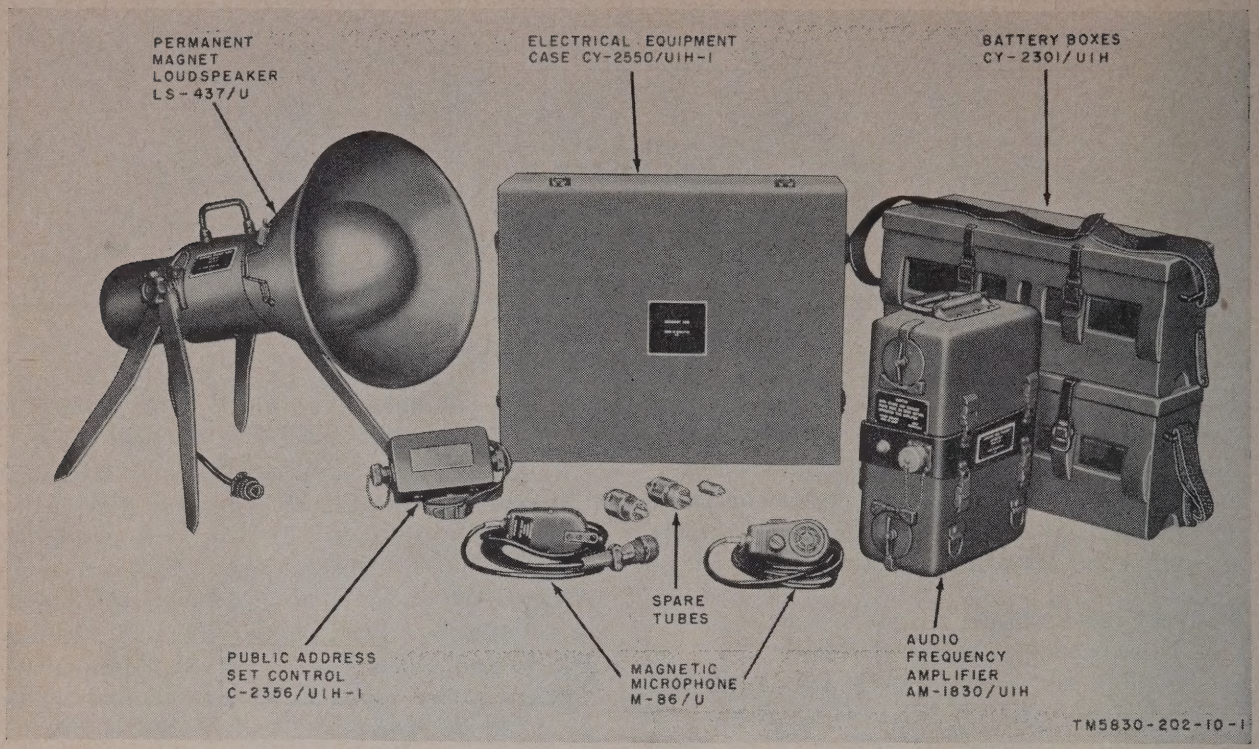
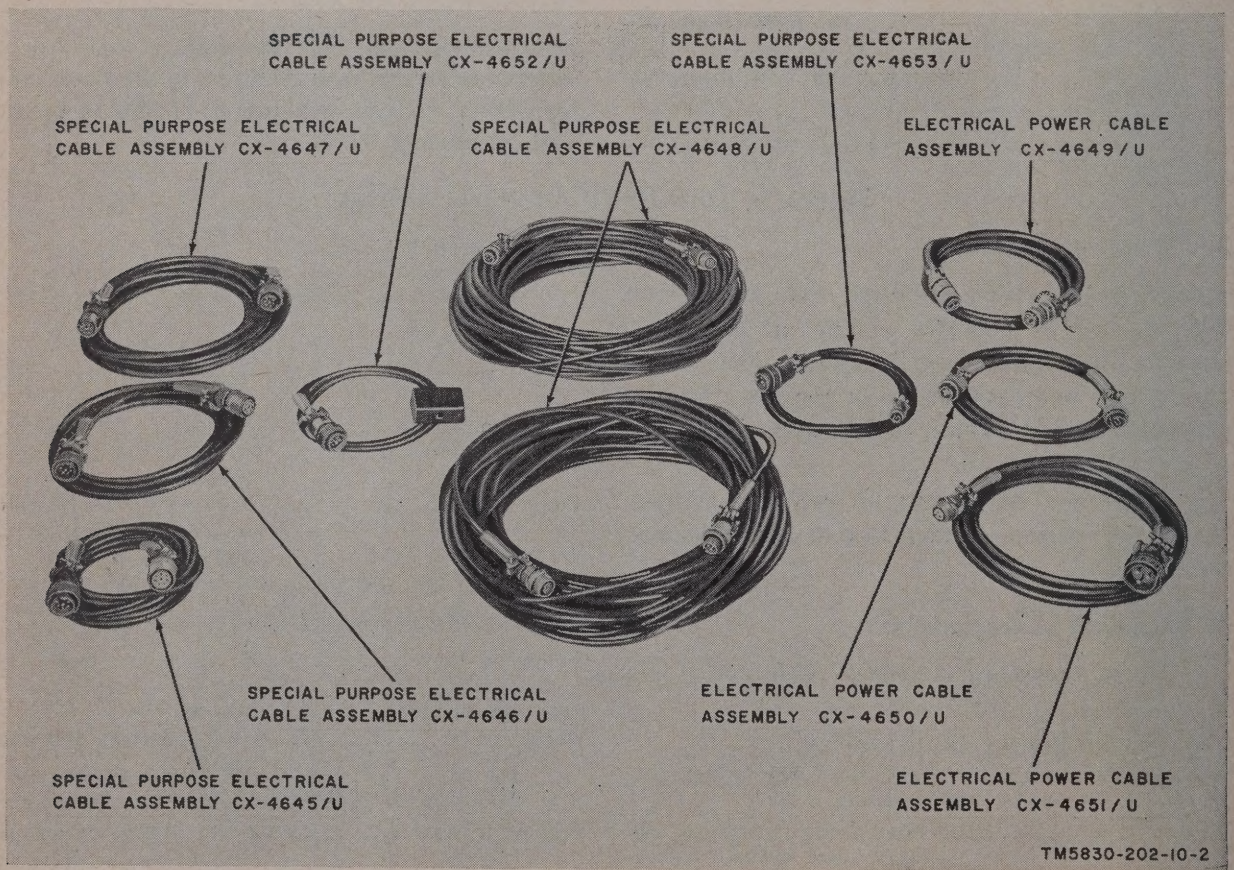


Figure 1. Public Address Set AN/UIH–1, less cables.


SPECIAL PURPOSE ELECTRICAL CABLE ASSEMBLY CX-4652/U
SPECIAL PURPOSE ELECTRICAL CABLE ASSEMBLY CX-4653/U
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SPECIAL PURPOSE ELECTRICAL CABLE ASSEMBLY CX-4645/U
ELECTRICAL POWER CABLE ASSEMBLY CX-4651/U
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Figure 2. Public Address Set AN/UIH–1, cables.

5. Table of Components

(figs. 1 and 2)

Quantity	Item	Dimensions (in.)	Volume (cu ft)	Unit Weight (lb)
1	Audio Frequency Amplifier AM–1830/UIH (containing Battery BA–234/U).	13 x 11¾ x 6	0. 53	25.
1	Permanent Magnet Loudspeaker LS–437/U	23 11/16 x 13¾ x 13¾	2. 59	15½.
1	Magnetic Microphone M–86/U	5¼ x 2⅝ x 1⅝	. 012	1¾.
2	Battery Box CY–2301/UIH	18 5/16 x 7⅞ x 4 21/32	. 39	6½.
1	Electrical Equipment Case CY–2550/UIH–1	20⅜ x 16½ x 9⅛	1. 77	13 (empty).
1	Public Address Set Control C–2356/UIH–1	5⅜ x 3¼ x 2¾	. 027	1½.
1	Special Purpose Electrical Cable Assembly CX–4645/U	50 ft long		
2	Special Purpose Electrical Cable Assembly CX–4648/U	125 ft long		
1	Special Purpose Electrical Cable Assembly CX–4646/U	6 ft long		
1	Special Purpose Electrical Cable Assembly CX–4647/U	50 ft long		
1	Electrical Power Cable Assembly CX–4649/U	6 ft long		
1	Electrical Power Cable Assembly CX–4651/U	10 ft long		
1	Electrical Power Cable Assembly CX–4650/U	3 ft long		
1	Special Purpose Electrical Cable Assembly CX–4652/U	3 ft long		
1	Special Purpose Electrical Cable Assembly CX–4653/U	10 ft long		
1 set	Spare Parts consisting of:			
	1 Magnetic Microphone M–86/U	5¼ x 2⅝ x 1⅝		1¾.
	2 electron tubes, type 5516			
	1 electron tube, type 3A5			

6. Nomenclature and Common Names

A list of the nomenclature assignments for Public Address Set AN/UIH–1 and its components is given below. A common name is indicated after each item.

Nomenclature	Common name
Public Address Set AN/UIH–1.	Public address set.
Audio Frequency Amplifier AM–1830/UIH.	Audio amplifier.
Permanent Magnet Loudspeaker LS–437/U.	Loudspeaker.
Magnetic Microphone M–86/U.	Microphone.
Battery Box CY–2301/UIH	Battery box.
Public Address Set Control C–2356/UIH–1.	Control unit.
Electrical Equipment Case CY–2550/UIH–1.	Accessory case.
Special Purpose Electrical Cable Assembly CX–4645/U.	Microphone extension cable.
Special Purpose Electrical Cable Assembly CX–4648/U.	Loudspeaker extension cable.
Special Purpose Electrical Cable Assembly CX–4646/U.	Control unit cable.
Special Purpose Electrical Cable Assembly CX–4647/U.	Control unit extension cable.
Electrical Power Cable Assembly CX–4649/U.	Dc power cable.
Electrical Power Cable Assembly CX–4651/U.	Vehicular power cable.
Electrical Power Cable Assembly CX–4650/U.	Battery interconnection cable.
Special Purpose Electrical Cable Assembly CX–4652/U.	Telephone input cable.
Special Purpose Electrical Cable Assembly CX–4653/U.	Bridging cable.

7. Description of Public Address Set

The components of the public address set, including the spare parts, are shown in figure 1, and the interconnecting cables are shown in figure 2. The spare parts and the interconnecting cables are stored in the accessory case.

a. Audio Amplifier (fig. 3).

(1) The audio amplifier operates from a 28-volt direct current (dc) power source. The audio inputs to this unit may be connected from either local or remote stations. The local inputs are applied from either a microphone, reproducer, or another audio amplifier (bridging). The remote station input to the audio amplifier is applied over telephone lines, through a telephone switchboard.

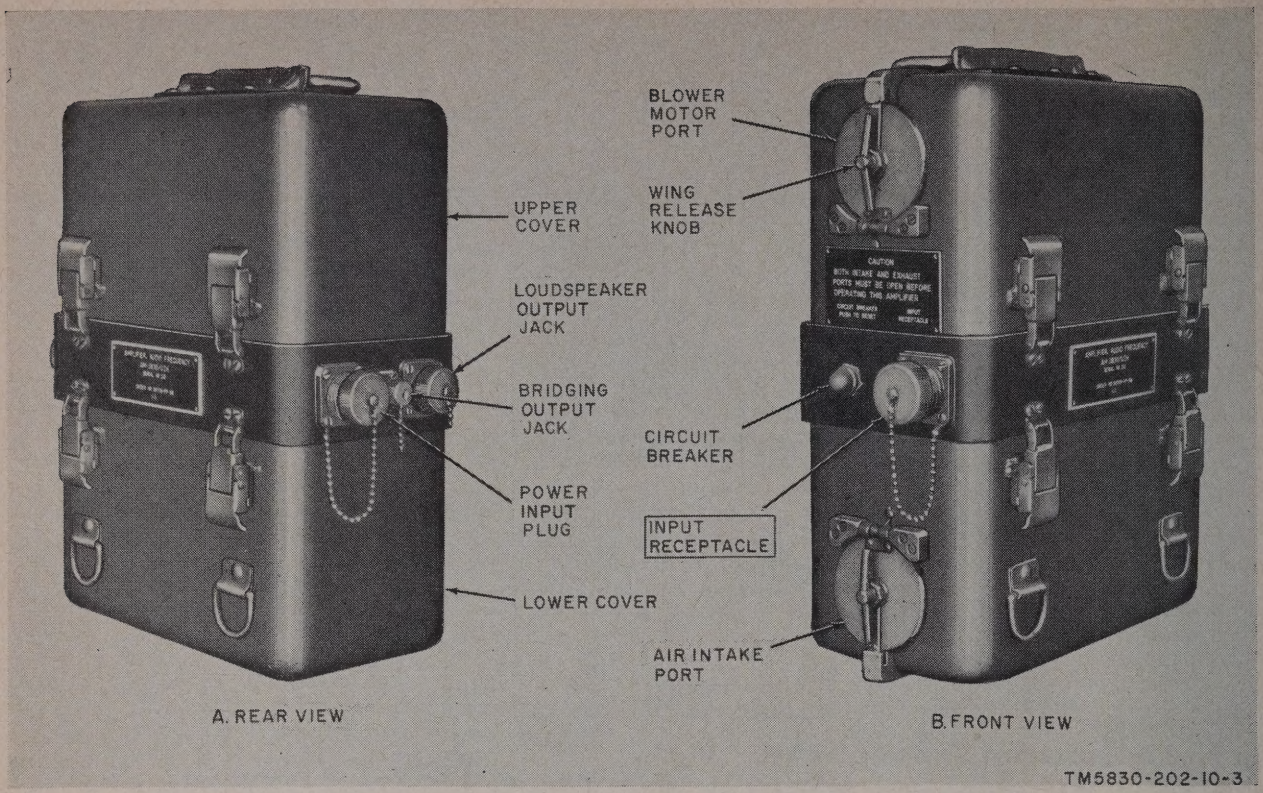

Figure 3. Audio Frequency Amplifier AM–1830/UIH.

(2) A blower motor port on the upper cover and an air intake port on the lower cover permit air intake and exhaust for cooling the internal parts.

(3) A circuit breaker is mounted on the side of the audio amplifier case and protects the audio amplifier against power overloads.

(4) The loudspeaker output jack, bridging output jack, power input plug, and INPUT RECEPTACLE are used for interconnecting the equipment.

b. Loudspeaker (fig. 4). The loudspeaker is mounted on two sets of collapsible bayonet legs. Each set of legs is pivoted on opposite sides of the horn. The legs may be folded together and secured to the sides of the horn. The loudspeaker is fitted with an attached cable and plug for connection to the audio amplifier, either directly or through extension cables.

c. Microphone (fig. 5). The microphone contains a cushion-mounted cartridge and volume control. It is fitted with an attached 6-foot cable for connection to the control unit, either directly or through an extension cable.

d. Battery Box (fig. 1). Transparent windows on the side of the battery box permit inspection of the level of the electrolyte and the charge of the batteries without removing the batteries. During operation, each battery box contains seven storage cells BB–241/U (not supplied with the equipment) that must be installed by second echelon personnel.

e. Control Unit (fig. 6). The control unit connects, through the cables (*f* below), the microphone, telephone, or reproducer inputs to the audio amplifier. It contains a variable intensity meter lamp to permit viewing the built-in meter during blackout operations. A strap is attached for carrying or securing the control unit.

f. Cables (fig. 2). Nine cables are provided for interconnection of the equipment and for power connection to either the battery boxes or to a vehicular battery. By using the various extension cables the audio amplifier can be located approximately 50 feet from the microphone and 250 feet from the loudspeaker.

g. Accessory Case (fig. 1). Handles are secured to the sides of the accessory case for convenience in carrying the case.

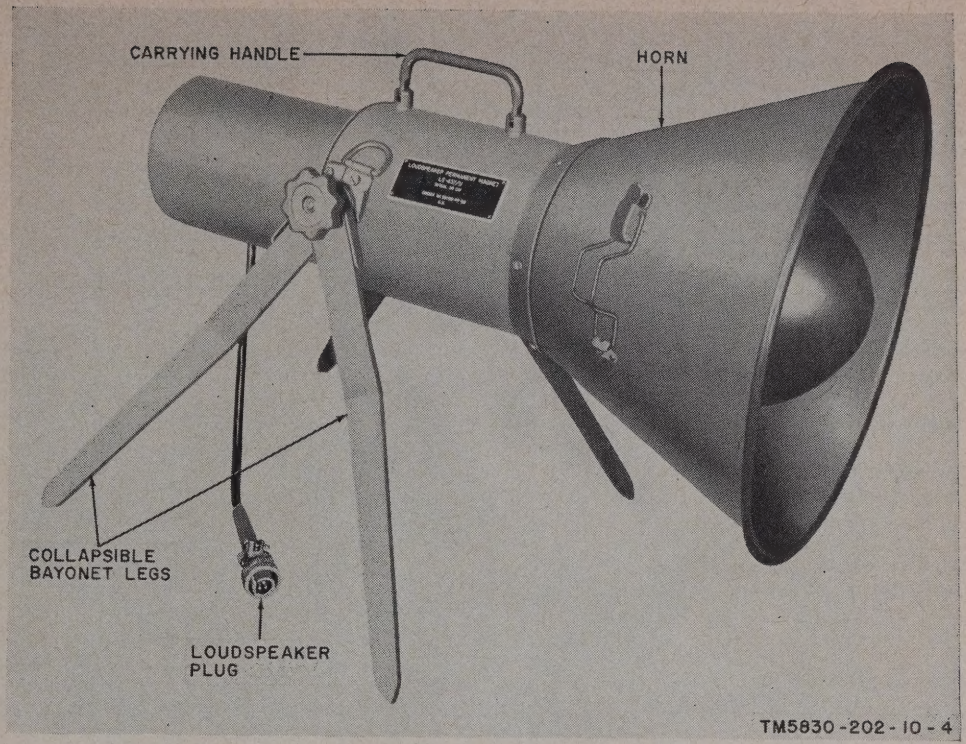

Figure 4. Permanent Magnet Loudspeaker LS-437/U.

CHAPTER 2

OPERATING INSTRUCTIONS

Section I. OPERATION UNDER USUAL CONDITIONS

Note. Installation of the public address set should be performed by second echelon personnel.

8. Damage from Improper Settings

When the equipment is connected for use with a microphone, see that the AMPLIFIER switch (fig. 6) on the control unit is set to the OFF position. If this switch is left in the ON position, the amplifier will operate continuously and drain the batteries.

9. Controls and Indicators

a. Microphone (fig. 5).

Control	Function
Press-to-talk switch	Turns audio amplifier on and off.
Volume control	Adjusts volume of audio amplifier output.

b. Control Unit (fig. 6).

Control or indicator	Function
AMPLIFIER ON-OFF switch.	Turns audio amplifier on or off.
LIGHT ON-OFF switch.	Turns meter lamp on or off.
PRESS FOR BATT VOLTS switch.	*Sw Pos* — *Function* Depressed — Connects meter to indicate battery supply voltage on VOLTS DC range. Normal — Connects meter to indicate output level of audio amplifier on DECIBELS range.
Meter	Indicates output level of audio amplifier or battery supply voltage, as selected by PRESS FOR BATT VOLTS switch.
Meter lamp	Provides light for viewing meter during blackout operation.

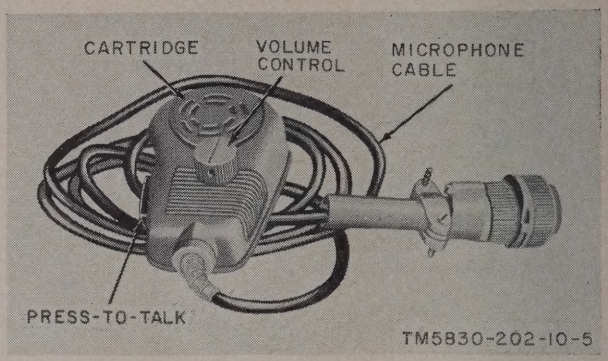

Figure 5. Magnetic Microphone M–86/U.

c. Audio Amplifier (fig. 3). The circuit breaker is depressed to reconnect the audio amplifier to the power source after the circuit breaker has been opened by a temporary overload.

10. Operation, General

a. To operate the equipment, perform the preliminary starting procedure (par. 11) and the applicable procedure listed below.

(1) Microphone input operation (par. 12).
(2) Reproducer input operation (par. 13).
(3) Telephone input operation (par. 14).

b. When the equipment is installed so that a part of the output of the audio amplifier is fed to the input of another audio amplifier (bridging), the operational procedure is determined by the source of signal input (*a*(1) through (3) above) to the primary audio amplifier.

11. Preliminary Starting Procedure

Before operating the equipment, proceed as follows:

a. Open the blower motor port (fig. 3) of the audio amplifier by twisting the wing release knob counterclockwise. The blower motor port is spring-loaded and will remain open when unlocked.

b. Remove any foreign matter from the screen over the blower motor port.

c. Open the air intake port of the audio amplifier by twisting the wing release knob counter-

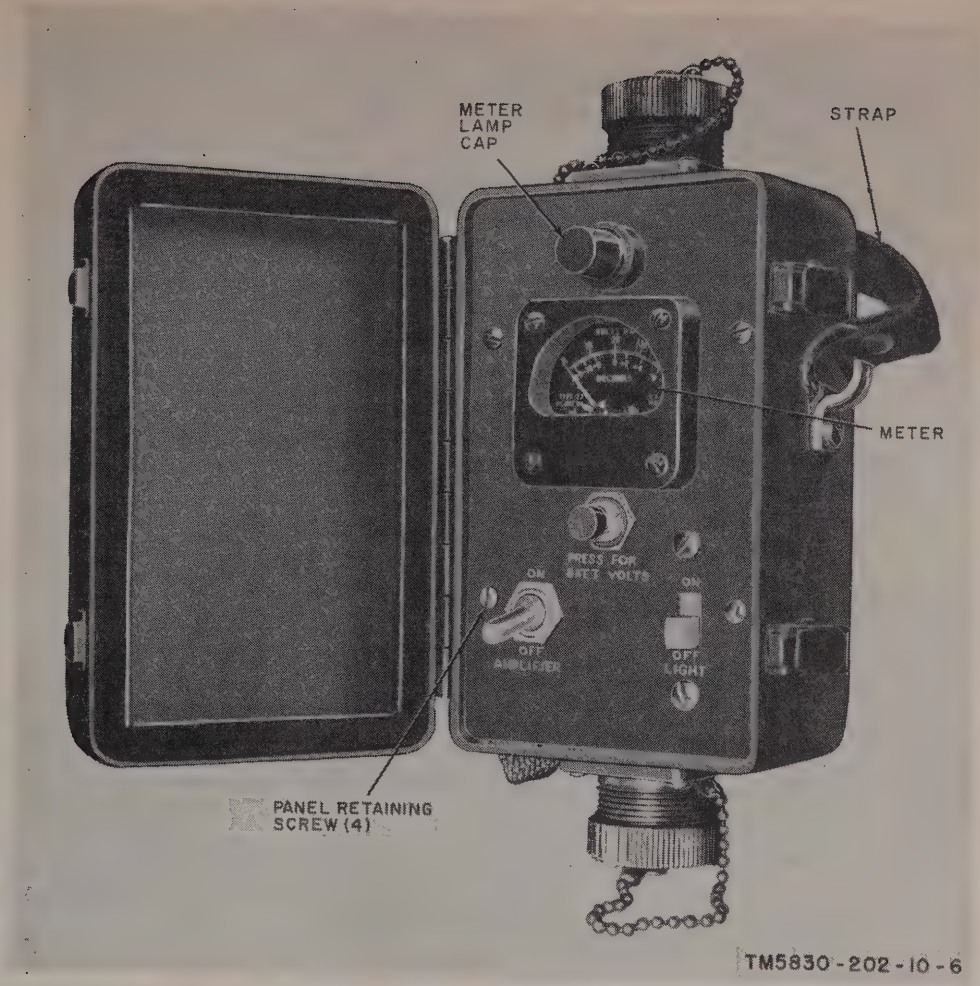

Figure 6. Public Address Set Control C–2356/UIH–1.

clockwise. The air intake port is spring-loaded and will remain open when unlocked.

d. Remove any foreign matter from the screen over the air intake port.

12. Microphone Input Operation

(fig. 5)

a. Operating Procedure.

(1) Set the volume control on the microphone to approximately midrange.

Note. Be sure the AMPLIFIER switch on the control unit is set to OFF.

(2) Press in on the press-to-talk switch.

(3) Commence speaking.

Note. Keep the switch pressed in while the microphone is being used.

(4) Adjust the volume control for the desired loudspeaker output.

Note. The amount of output will be determined by the size of the group being addressed and the area to be covered.

b. Stopping Procedure.

(1) Release the press-to-talk switch.

(2) When the public address set will be out of use for more than 1 hour, perform the shut-down procedure (par. 15).

13. Reproducer Input Operation

a. Operating Procedure.

(1) Turn on the reproducer.

(2) Adjust the reproducer output control to approximately midrange.

(3) Set the AMPLIFIER switch (fig. 6) to the ON position.

(4) Adjust the reproducer output level control for the desired loudspeaker output.

Note. The amount of output will be determined by the size of the group being addressed and the area to be covered.

b. Stopping Procedure.

(1) Set the AMPLIFIER switch to the OFF position.

(2) Turn off the reproducer.
(3) When the public address set will be out of use for more than 1 hour, perform the shut-down procedure (par. 15).

14. Telephone Input Operation

(fig. 6)

a. Operating Procedure.

(1) Set the AMPLIFIER switch to ON.
(2) Advise the transmitting station that the public address set is in operation, and of the required volume control information.

Note. It will be necessary for the operator of the public address set to maintain contact with the transmitting station during this type of operation.

b. Stopping Procedure.

(1) Set the AMPLIFIER switch to the OFF position.
(2) Inform the transmitting station that the public address set is turned off.
(3) When the public address set will be out of use for more than 1 hour, perform the shut-down procedure (par. 15).

15. Shut-Down Procedure

a. Remove any foreign matter from the screen over the blower motor port (fig. 3).

b. Close and lock the blower motor port by raising it into position and twisting the wing release clockwise.

c. Remove any foreign matter from the screen over the air intake port.

d. Close and lock the air intake port by raising it into position and twisting the wing release knob clockwise.

Section II. OPERATION UNDER UNUSUAL CONDITIONS

16. Operation at Low Temperatures

At low temperatures, the batteries used in the public address set have poor efficiency, and this may reduce the efficiency of the public address set. To avoid this condition, keep the battery boxes in a heated area.

17. Operation Under Tropical Conditions

In tropical climates, the equipment may be operated in swampy areas where extreme moisture conditions exist. The high relative humidity causes condensation of moisture on the equipment whenever the temperature of the equipment becomes lower than that of the surrounding air. Keep the equipment dry and always keep the air intake and blower motor ports closed when the equipment is not in use.

18. Operation in Desert Climates

In desert climates, large amounts of sand may enter the moving parts of the public address set. Keep the equipment as free from sand as possible. Always keep the air intake and blower motor ports closed when the equipment is not in use.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

19. Scope of Operator's Maintenance

The following is a list of the maintenance duties normally performed by the operator of the public address set. These procedures do not require special tools or test equipment.

a. Preventive maintenance (par. 20).

b. Replacement of defective meter lamp and tubes (par. 22).

c. Checking circuit breaker.

d. Checking cable connections.

20. Preventive Maintenance

a. DA Form 11–238. DA Form 11–238 (figs. 7 and 8) is a preventive maintenance checklist to be used by the operator. Items not applicable to the public address set are lined out in the figures. References in the ITEM block in the figures are to paragraphs that contain additional maintenance information pertinent to the particular item. Instructions for the use of the form appear on the form.

b. Items. The information shown in this subparagraph is supplementary to DA Form 11–238. The item numbers correspond to the ITEM numbers on the form.

Item	Maintenance procedures
2	Use a clean cloth to remove dust, dirt, moisture, and grease from the cases, the microphone, and the front-panel controls.
3	The control knob should work smoothly; it should be tight on the shaft, and should not bind. Be sure that it does not rub against the panel.
11	Clean the air intake and blower motor ports.

21. Operational Checklist

a. General. The operational checklist will help the operator locate the trouble quickly. The corrective measures are used to repair this trouble. If the measures suggested do not restore normal equipment performance, troubleshooting is required at a higher echelon. Note on the repair tag what corrective measures were taken and how the equipment performed at the time of failure.

b. Procedure. Follow the procedures below to check the equipment.

Item No.	Action	Normal indication	Corrective measure
1	Set AMPLIFIER switch (fig. 6) to OFF position (microphone input only).		
2	Perform preliminary starting procedure (par. 11).	Blower motor port and air intake port open.	Turn in equipment for higher echelon repair.
3	Push LIGHT switch (fig. 6) to ON position and then to OFF position.	Meter lamp goes on and then off.	Replace meter lamp (par. 22*a*). Check circuit breaker (fig. 3).
4	Press the PRESS FOR BATT VOLTS switch (fig. 6).	Control unit meter (fig. 6) indicates battery voltage to be between 24 and 28 volts.	Check connections of battery cables. Check electrolyte level of batteries. If electrolyte falls below line add distilled water. Turn in equipment for higher echelon repair.
5	*a.* With microphone input set volume control (fig. 5) to midrange, depress the press-to-talk switch, and speak into microphone. *or* *b.* Operate the public address set with reproducer input (par. 13) or telephone input (par. 14).	Audio level indicated on control unit meter (fig. 6) and voice output heard from loudspeaker.	Check all cable connections. Check for defective tube or tubes (par. 22*b*). With microphone input, replace microphone. Turn in equipment for higher echelon repair.

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
26. ~~INSPECT ANTENNA FOR ECCENTRICITIES, CORROSION, LOOSE FIT, DAMAGED INSULATORS AND REFLECTORS.~~	
27. ~~CHECK FOR NORMAL OPERATION.~~	
28. ~~BEFORE SHIPPING OR STORING, REMOVE BATTERIES~~	

IF DEFICIENCIES NOTED ARE NOT CORRECTED DURING THE INSPECTION, INDICATE ACTION TAKEN FOR CORRECTION.

ITEM 11. METER WINDOW BROKEN ON CONTROL UNIT. REFERRED TO HIGHER ECHELON MAINTENANCE FOR REPAIR.

FOLD

MAINTENANCE CHECK LIST FOR SIGNAL EQUIPMENT
SOUND EQUIPMENT, RADIO, DIRECTION FINDING
RADAR, CARRIER, RADIOSONDE AND TELEVISION
(AR 750-625)

EQUIPMENT NOMENCLATURE: PUBLIC ADDRESS SET AN/UIH-1

EQUIPMENT SERIAL NUMBER: 102

INSTRUCTIONS

This form may be used for a period of one month by using the correct dates and weeks of the month. It is to be used as a Preventive Maintenance check list for Signal equipment in actual use, or for a check on equipment prior to issue.

1. For detailed Preventive Maintenance instructions see:
   a. The Technical Manual *(in TM 11 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   b. The Supply Bulletin *(SB 11-100 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   c. The Department of the Army Lubrication Order. *(See DA Pamphlet Number 310-4)*

2. The following action will be taken by either the Communications Officer/Chief for 1st echelon, or the Inspector for higher echelon:
   a. Enter Equipment Nomenclature and Serial Number.
   b. Strike out items that do not apply to the equipment.

3. Operator/Inspector will enter in the columns entitled CONDITION, on the proper line, a notation regarding the condition, using symbols specified under LEGEND.

4. After operator completes each daily inspection he will initial over the appropriate dates under "Daily Condition for Month", then return form to his supervisor.

TYPE OF INSPECTION

OPERATOR	2/3 ECHELON	DATE	SIGNATURE
✓		7 FEB 59	John Jackson

4

DA FORM 1 MAY 57 11-238

REPLACES DA FORMS 11-238, 1 NOV 55; 11-239, 11-244, 11-245, 11-248, 11-249, 11-250, AND 11-251; WHICH ARE OBSOLETE.

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Figure 7. DA Form 11–238, pages 1 and 4.

LEGEND for marking conditions:
Satisfactory, ✓.
Adjustment, Repair or Replacement required, X.
Defect corrected, (X).

DAILY CONDITION FOR MONTH OF

NO.	DAILY ITEM	1/17	2/18	3/19	4/20	5/21	6/22	7/23	8/24	9/25	10/26	11/27	12/28	13/29	14/30	15/31	16	2D 3D ECHELON
1.	COMPLETENESS AND GENERAL CONDITION OF EQUIPMENT. (~~Transmitter, receiver~~, carrying cases, ~~wire~~, cables, microphones, tubes, spare parts, technical manuals).	✓	✓	✓	✓	✓	✓	✓										
2.	CLEAN DIRT AND MOISTURE FROM ~~ANTENNA~~, MICROPHONES, ~~HEADSETS, KEYS, JACKS~~, PLUGS, COMPONENT PANELS. PAR. 21b	✓	✓	✓	✓	✓	✓	✓										
3.	INSPECT CONTROLS FOR NORMAL OPERATION. TAP CONTROLS LIGHTLY FOR EVIDENCE OF CUT-OUT FROM LOOSE CONTACTS. PAR. 21b	✓	✓	✓	✓	✓	✓	✓										
4.	CHECK FOR NORMAL OPERATION OF EQUIPMENT. BE ALERT FOR UNUSUAL OPERATION OR CONDITION. PAR. 11 AND 12 13, 14, OR 15	✓	✓	✓	✓	✓	✓	✓										

WEEKLY	CONDITION EACH WEEK 1ST	2D	3D	4TH	5TH	2D 3D ECH
5. CLEAN ~~AND TIGHTEN~~ EXTERIORS OF CASES, ~~RACKS, MOUNTS, TRANSMISSION LINES~~.	✓					
6. INSPECT CASES, MOUNTS, ~~ANTENNA TOWERS~~ AND EXPOSED METAL SURFACES FOR RUST, CORROSION.	✓					
7. INSPECT CORDS, CABLE, WIRE, SHOCK MOUNTS FOR CUTS, KINKS, BREAKS, FRAYING, UNDUE STRAIN.	✓					
8. ~~CHECK ANTENNA GUY WIRES FOR PROPER TENSION OR DAMAGE~~.						
9. INSPECT CANVAS AND LEATHER ITEMS FOR MILDEW, TEARS, FRAYING.	✓					
10. INSPECT ACCESSIBLE ITEMS FOR LOOSENESS: SWITCHES, KNOBS, ~~JACKS~~, CONNECTORS, ~~RELAYS, TRANSFORMERS, MOTORS~~, PILOT LIGHTS, ~~BLOWERS~~, ETC.	✓					
11. CLEAN AND/OR INSPECT ~~AIR FILTERS~~, BRASS NAME PLATES, DIAL AND METER WINDOWS.	X					
12. INSPECT STORAGE BATTERIES FOR DIRT, LOOSE TERMINALS, SPECIFIC GRAVITY, DAMAGED CASES. ~~INSPECT DRY BATTERIES FOR LEAKAGE~~. PAR 21b	✓					

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
13. ~~INSPECT SHELTERS AND COVERS FOR ADEQUACY OF WEATHER PROOFING, TEARS, FRAYING~~.	
14. ~~CHECK TERMINAL BOX COVERS FOR CRACKS, DIRT, LEAKS, DAMAGED GASKETS, GREASE~~.	

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
15. ~~INSPECT SEATING OF READILY ACCESSIBLE PLUG-OUT ITEMS: TUBES, LAMPS, FUSES, CRYSTALS, CONNECTORS, VIBRATORS, PLUG-IN COILS~~.	
16. ~~INSPECT RELAYS AND CIRCUIT BREAKERS FOR LOOSE MOUNTINGS, BAD CONTACTS, MIS-ALINEMENT OF CONTACTS AND SPRINGS, PROPER SPRING TENSION~~.	
17. ~~INSPECT VARIABLE CAPACITORS FOR DIRT, MIS-ALINEMENT OF PLATES, LOOSE MOUNTINGS, MOISTURE~~.	
18. ~~INSPECT RESISTORS, BUSHINGS AND INSULATORS FOR CRACKS, CHIPPING, BLISTERING, MOISTURE, DISCOLORATION~~.	
19. ~~CLEAN AND TIGHTEN SWITCHES, TERMINAL BLOCKS, BLOWERS, RELAY CASES AND INTERIORS OF CHASSIS AND CABINETS NOT READILY ACCESSIBLE~~.	
20. ~~INSPECT TERMINAL BLOCKS FOR LOOSE CONNECTIONS, CRACKS AND BREAKS~~.	
21. ~~INSPECT TERMINALS OF LARGE FIXED CAPACITORS AND RESISTORS FOR DIRT, CORROSION, LOOSE CONTACTS~~.	
22. ~~INSPECT TRANSFORMERS, CHOKES, POTENTIOMETERS AND RHEOSTATS FOR OVERHEATING AND OIL LEAKAGE~~.	
23. ~~INSPECT GENERATORS, AMPLIDYNES, DYNAMOTORS FOR BRUSH WEAR, SPRING TENSION, ARCING AND FITTING OF COMMUTATOR~~.	
24. ~~INSPECT CATHODE RAY TUBES FOR BURNT SCREEN SPOTS~~.	
25. ~~INSPECT WATERPROOF GASKETS FOR LEAKS, WORN OR LOOSE PARTS~~.	

CONTINUED ON PAGE 4

2 3

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Figure 8. DA Form 11–238, pages 2 and 3.

22. Repairs

The only repairs that the operator may perform are the replacement of the meter lamp and defective tubes.

a. To replace the meter lamp, proceed as follows:

(1) Unscrew the meter lamp cap (fig. 6).
(2) Lift out the defective lamp.
(3) Insert the new lamp.
(4) Replace the meter lamp cap by screwing it down.

b. If a tube is obviously defective (cracked or broken), or if a tube is suspected of being defective (par. 21), proceed as follows:

Note. Be sure that the AMPLIFIER switch (fig. 6) is in the OFF position when a tube is being changed.

(1) Release the luggage catches and remove the upper cover (fig. 3) to expose the tubes (fig. 9).
(2) Replace the defective tube, or the tube suspected of being defective, with a new tube.

Note. Before removing the driver tube or any one of the output amplifier tubes, disconnect the plate cap and then release and lift off the tube clamp.

(3) If the equipment remains inoperative, remove the new tube and put back the original tube.
(4) Repeat the procedures given in (2) and (3) above until the defective tube is located.
(5) Secure the tube clamps, replace the upper cover (fig. 3), and secure the luggage catches.

Note. If the equipment is not operative after checking the tubes, turn in the equipment for higher echelon maintenance.

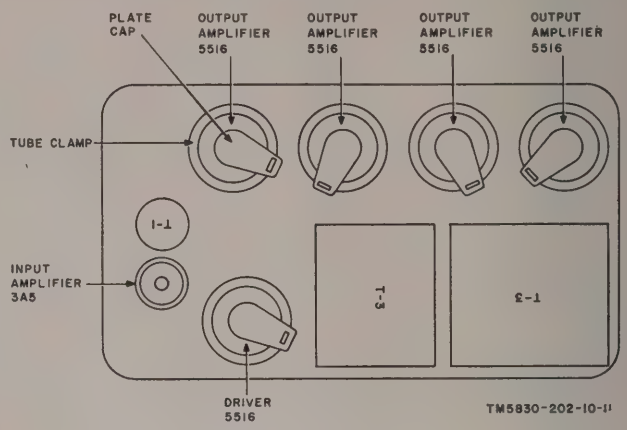

Figure 9. Tube location diagram.

CHAPTER 4

DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

23. Authority for Demolition

Demolition of the equipment will be accomplished only upon the order of the commander. The destruction procedures outlined in paragraph 24 will be used to prevent further use of the equipment.

24. Methods of Destruction

Use any of the following methods to destroy the equipment:

a. Smash. Smash the controls, tubes, switches, capacitors, transformers, and meter; use sledges, axes, handaxes, pickaxes, hammers, or crowbars.

b. Cut. Cut all cables and slash the shields; use axes, handaxes, or machetes.

c. Burn. Burn cords and technical manuals; use gasoline, kerosene, oil, flamethrowers, or incendiary grenades.

d. Bend. Bend panel and cases.

e. Explode. If explosives are necessary, use firearms, grenades, or TNT.

f. Dispose. Bury or scatter the destroyed parts in slit trenches, foxholes, or throw them into streams.

[AG 413.47 (5 Feb 59)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

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USAR: None.
For explanation of abbreviations used, see AR 320–50.

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